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Full Length Research Paper

Knowledge and Attitudes of Select Ugandan Nurses towards Documentation of Patient Care

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Ideally through documentation, nurses track changes in a patient's condition, make decisions about needs, and ensure continuity of care. However, nursing documentation has often not met these objectives. In Uganda, the systematic nursing specific approach is not reflected in documentation of nursing care. A mixed methods intervention study was conducted to determine knowledge and attitudes of nurses towards documentation, including an evaluation of nurses' response to a designed nursing documentation form. Forty participants were selected through convenience sampling from six wards of a Ugandan health institution. The study intervention involved teaching nurses the importance of documentation and using of the trial documentation tool. Pre and post testing and open-ended questionnaires were used in data collection. On both pre and post-tests, most participants strongly agreed that nursing notes were meaningful and necessary for legal protection, as well as a nursing priority. Most participants strongly disagreed that there was familiarity with policies on nursing documentation, and that an uninterrupted environment for care documentation existed. Although participants' knowledge about documentation improved by 20% following the intervention, there was no significant change in attitudes toward documentation. Participants consistently reflected on documentation as an important practice, but highlighted contextual constraints limiting implementation and quality of documentation. The study findings have implications for pre and post-service training, documentation policies, and organizational supports for nursing documentation.

Key Words: Nursing documentation, patient care records, nurse progress notes, nursing care records, Uganda healthcare.

INTRODUCTION

Documentation is vital to safe, ethical, and effective nursing practice in clinical areas. Nursing practice requires documentation to ensure continuity of care, planning, and accountability, as well as in the promotion and uptake of evidence-based practice.

In Uganda, nursing documentation remains at a manual (non-technology driven) level. Nurses continue to capture standard elements in their documentation such as vital signs, medication administration, intake and output (I&O), admissions/discharges, births/ deaths, and change of

shift reports. These elements, however, are often captured in various locations or are replicated in more than one site. For example, admissions/ discharges and births/deaths are recorded in a registry book maintained in each unit. Medication administration details, vital signs, and I&O are kept in individual patient files, often documented in multiple ways including charting and form presentations. When moving to specialty units (i.e., cardiac or intensive care) additional documentation includes assessment findings, such as electrocardiogram results or oxygen saturation. Maternity nurses and midwives use specialized history, physical examination, and partograms for documentation of the progress of labor. Further, there is limited documentation of patient responses to nursing care and even nursing care itself is not consistently documented beyond what is described previously.

Examples of nursing care, which are often not documented, include the assessment of nutritional status, risks and/or interventions for the health and safety of their patients, and health teaching. Overall, the systematic nursing approach which is summarized in the nursing process is not documented in the Ugandan healthcare environment. Documentation refers to any written information about a patient that describes status, the care or services provided to a patient by a nurse (Potter, Perry, Astle, and Duggleby, 2014). It serves as a legal document, gives credibility to nursing practices, and enhances the professional image and presence of nurses (Priest, Kookan, Ealey, Holmes, and Hufeld, 2007; Ofi and Sowumani, 2012). Nursing documentation can take a form of written or electronic health record as a means of communication across the health care team. When caring for an individual patient, the nurse's documentation provides a clear picture of the status of the client, the actions of the nurse, and the care involvement outcomes (Potter et al, 2014).

According to Stinnett (1990), documentation started with Florence Nightingale who documented diagrammatically causes of mortality during the Crimean War as sicknesses rather than wounds. The meaningful message persuaded the military authorities, Parliament, and Queen Victoria to carry out hospital reforms, as well as catapulted nursing and hospital management into the realm of science.

Since this humble beginning, nursing documentation has evolved into an essential element in achieving holistic nursing care (Björvell, 2002) and has brought with it the obligation to document not only the performed interventions (acts of commission), but also decision processes, explanation of acts of omission, and care outcomes (Yocum, 2002). Nursing documentation provides an account of the judgment and critical thinking used in the nursing process. Accurate timely documentation reflects care provided; meets professional, legislative and agency standards; promotes enhanced nursing care; and facilitates communication between nurses and other healthcare providers (Preist et al., 2007).

Effective documentation assures quality of care, saves time, and minimizes the risk of errors (Yocum 2002). The evaluation of quality of patient care is increasingly dependent on the caregiver's ability to communicate through documentation as part of the continuum of care (Potter et al, 2014).

Nursing documentation has often fallen short due to a number of systemic complexities (Cheevakaemao, Chapman, Francis, and Davies, 2006). A retrospective study in Canada Oldfield, (2007) found that documentation did not always accurately reflect the care that was given or failed to report patient outcomes (Oldfield, 2007). A survey done in South Africa by Nordstrom and Gardulf (1996) revealed considerable deficiencies in documentation including inadequacies in

two-thirds of the reviewed records. This South African study also revealed that nursing diagnosis, goals, and discharge notes were poorly documented. According to Ohlen, Forsberg, and Broberger (2013), nursing documentation is a quality indicator of care and nursing performance.

Despite the range of uses noted above, many will question why document? Documentation is generally recognized across the world as one of the important duties underscoring professional autonomy and assisting nurses to apply the nursing plan of care and theories in their clinical settings (Cheevakasemsook, et al. 2006). From a clinical lens documentation gives an accurate picture of a patient's condition, and context of care within a particular interaction (Gogler, Julli, Monaghan and Searie, 2008; Panns, Serneus, Nieweg Roos, van der Schans, 2010). From a lego-ethical lens, it encapsulates individualized, goal-directed patient care and captures the actual care path. From a professional lens, it provides a quality improvement evidentiary base to support objective continuous reviews of client care meeting the World Health Organization [WHO] (2007) requirements. This was reiterated by Peacock and Stranick-Hutt (2013) who looked at best practices and documentation. Setz and D'Innocenzo (2009) evaluated the quality of nursing documentation a retrospective chart review that revealed over one-quarter to be of poor quality and less than 10% to be of good quality. According to Law, Akroyd and Burke (2010), skilled professional nurses are more likely to produce quality documentation.

International and local nursing bodies emphasize that documentation is a lego-ethical and professional requirement (Braaf, Manias and Riley, 2011; International Council of Nurses, 2012). A major systematic challenge to quality nursing documentation is the lack of standards and no single model for a health record (Taylor, 2005). Owen (2005) stated that "while recognizing that documentation is an integral part of nursing and promotes good practice, the Nurses and Midwifery Council (NMC) provides little guidance on how records should be written" (p. 48). According to the United Kingdom's NMC (2002) and Setz and D'Innocenzo (2009), records should be factual, current, comprehensive, chronological, and consistently formatted respecting the assessment and care of patients. Additionally, documentation should be signed by the practitioner in a manner that cannot be erased and is legible on photocopies.

Barriers, such as lack of time, lack of staff, lack of clarity in the documentation process, and perceived lack of interest and/or lack of need for documentation, were also evidenced in the literature (Asamani, Amenorpe, Babanawo and Ofei, 2013; Owen, 2005; Bjorvell, Wredling and Thoreel-Ekstand, 2003). Bjorvell et al. (2003) found that over 70% of nurse participants believed that they had insufficient time to properly document, which they attributed to their perceptions of limitations of work organization and environment.

A number of authors (Ajzen, 1991; Johnson, 2011; Karkkainen, Bondas and Eriksson, 2005) suggested that nurses' levels of knowledge and attitudes towards documentation was related to their intention to document

care. Further, these studies reflected that knowledge alone is insufficient in changing the documentation practices of nurses.

Renfro, Sullivan and McGee (1990) emphasized that effective documentation improvement strategies must be designed to both identify the nurse's intent to document as well as to affect intention.

No literature on the situation in Africa specifically considered nurses' attitude towards documentation of patient care; however, some studies identified a gap in documentation of patient care by the nurses (Uys and Naidoo 2004).

A Ugandan based study on bedside practice of blood transfusion found that documentation was limited or absent contributing directly to quality of patient care (Graaf, Kajja, Bimenya, Postma and Sibinga, 2009).

The literature clearly suggested that documentation is a critical element of patient care globally. For this study, the researcher hypothesized that Ugandan nurses consider nursing documentation a priority in achieving quality of care but experience barriers to achievement. There is limited consideration and research of this important aspect of care in the Ugandan context specifically. This study assessed knowledge and attitudes regarding documentation of a select group of Ugandan nurses in a hospital in order to inform the preferred futures for quality patient documentation in the facility and the country. The study included an intervention in which the nurse participants received training and participated in a one month assessment of a documentation tool.

METHODS

Research Design

A quasi-experimental interventional study investigated knowledge and attitudes of a select group of Ugandan nurses towards nursing documentation. A mixed methods study was chosen in which both qualitative and quantitative approaches were used. In terms of the interventional study design, baseline pre-test information on knowledge and attitudes was obtained from participants. This self-administered pre-test was a questionnaire with 10 objective questions on knowledge and 16 Likert scale responses on attitudes. The intervention phase saw the provision of a teaching module to the participants on the importance of documenting patient care, as well as the introduction, and orientation of the nurses to a trial documentation form. The nurses were encouraged to document the care they rendered to patients and the outcomes on the trial documentation form which was included in the patients' records.

Following one month of use of the trial documentation form, the nurses' knowledge and attitudes were reassessed with a post-test which was the same as the pre-test questionnaire.

Ethical Considerations

Study approval was obtained from Uganda Christian University Research and Ethics Committee and Research and Ethics committee of the involved Hospital. An introductory letter from the Department of Health Science in the Nursing Program at Uganda Christian University Mukono was obtained to introduce the researcher to the Hospital Research Committee. A consent form attached to the questionnaire was used to request the prospective participants to take part in the study and only those who consented participated in the study.

Pilot Study

A pilot study occurred on one ward in the same health institution outside of the target population. The pilot trialled the pretest with five nurses. The data were not included in the study findings, but was used to confirm, alter, and refine instructions, as well as to predict level of knowledge increase post-intervention. The pilot phase mean score for knowledge was 50%, and a 30% improvement was anticipated after the intervention. In the case of the attitudes, the mean score in the pilot phase was 70% with an anticipated increase of 15% in the post-intervention.

Sample

The target population included all registered nurses and midwives with at least 2 years work experience employed on a general medical, general surgical, or obstetrics/gynecology ward at the involved Hospital. Due to the 8 hour shift schedule, it was difficult to bring all these nurses together for a briefing about the research; therefore, a convenience sampling approach was used at the ward level. Inclusion criteria were: status as a professional nurse (i.e., enrolled, registered, or graduate nurses); tenure of experience (> 2 years); current employment on one of the targeted units; and voluntarily consenting to participate in the study.

Within the study environment, which included 2 medical, 2 surgical, and 2 gynecological/obstetric units, there were 80 nurses who met the criteria. In order to determine sample size, a modified formula by Kish and Leslie as described by Daniel (1999) was used due to the small potential population (See Table 1 for calculation).

Data Collection

Based on an in-depth literature review, a three part self-administered questionnaire was informed and designed. Part One captured seven demographic characteristics including identification number, age, educational level, present unit where the participant worked, qualifications,

Table 1.

| | |
|-------------|---|
| Formula | $n = NZ^2pq/D^2 (N-1) + Z^2pq$ |
| | N: actual number of nurses in the six wards units in the health institution |
| | Z = 1.96 (standard normal deviation at 95% confidence interval) |
| | p = Average estimated knowledge increase on documentation. Calculated from the pilot study done in ward units which was 30% |
| | q = 1-p; 1- 0.3 = 0.7 |
| | D = Maximum error acceptable between estimated prevalence and true prevalence of the knowledge in the population (set at 5%) |
| Calculation | $n = 80 \times 1.96^2 \times 0.3 \times 0.7 / 0.05^2 \times (80-1) + 1.96^2 \times 0.3 \times 0.7$ n = 36 participants ** a 10% contingency to adjust for loss to follow up n = 40 participants |

current position, and years of experience. Part Two included ten multiple choice questions on knowledge assessment and a Likert scale of 16 experiential factors exploring nurses’ attitudes towards documentation and the institutional support for documentation. Part Three contained two open ended questions exploring the nurses’ knowledge and attitudes towards nursing documentation and implementation of a nursing documentation process in their hospital.

Pre-Intervention Tool Administration

The questionnaires were delivered and distributed by the researcher, who remained on the ward to collect the forms, with assistance of the ward in-charges. A total of 40 participants were purposively selected from the six wards. When the required number of participants was achieved, no additional nurses were enrolled in the study.

Intervention

The intervention involved teaching the 40 participants about the importance of documenting patient care, reviewing the nursing documentation process, and introducing/orientating the nurses to the trial documentation form. The intervention was done at the individual ward level as it was very difficult to bring all the participants together for a workshop. The nurses were encouraged to document care and patient outcomes in the trial documentation form, which was to be completed

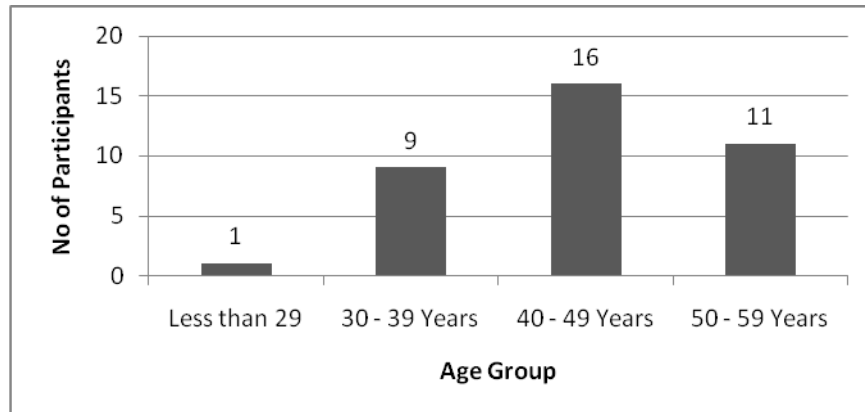
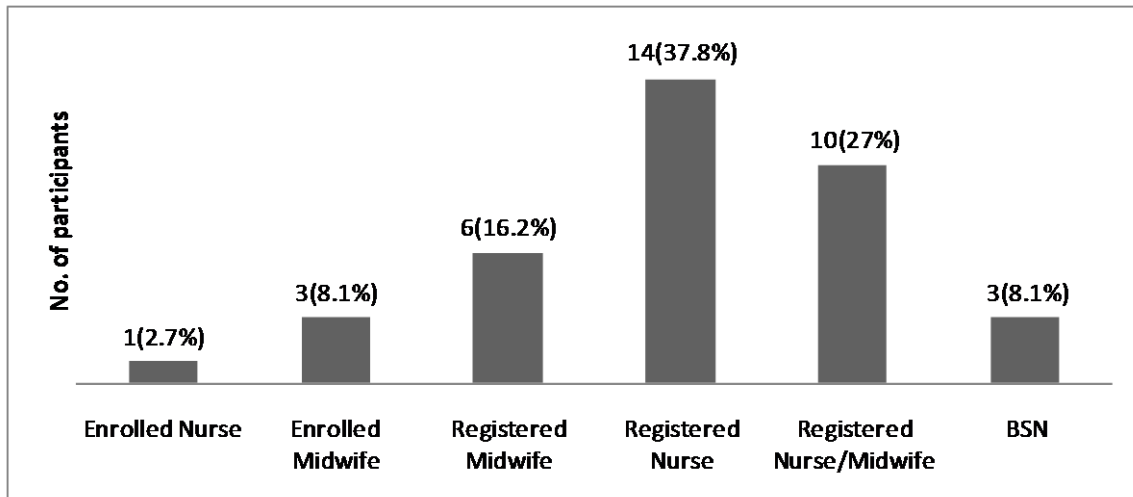
along with traditional clinical notes. The researcher was available every other day on the wards to provide clarification or confirmation as problems or issues arose with the tool.

Post-Intervention Tool Administration

After one month of using the trial documentation form, each participant was asked to complete a post-intervention questionnaire. These were return to the researcher or to the ward in-charges. The post-intervention tool mirrored the pre-intervention tool. In total, 37 post-intervention questionnaires were returned. Mortality to the study was linked to three nurses not using the trial documentation form, which therefore eliminated them from the study.

Findings

All data was cleaned, coded, and entered in the computer using Epidata™ software. The data was double entered into different files and then compared for discordances. The discordances were corrected against the original paper records and final results were exported to the Statistical Package for the Social Sciences (SPSS™) 16.0 software for analysis. Coding is further described below. Frequencies, descriptive statistics, and correlations were run. The paired t- test compared the mean scores on the pre-and post-tests to identify differences. A logistic regression model was run using the categories of the dependent variables (i.e., categorized test scores on knowledge and attitude) and independent

Figure 1. Distribution of Participant Age Groupings (n=37) .**Figure 2.** Distribution of Qualifications of Participants (n=37).

variables (i.e., demographic characteristics and responses on the Likert scale) to obtain predictor variables.

Socio-Demographic Characteristics of the Participants

Demographically, participants were probed on six traits - age, education level, qualification, distribution and position on the ward units, and years of experience. The ages of participants (see Figure 1) was normally distributed with a mean of 43.24 and a standard deviation of 8.48. The majority of participants are in the 40-49 age range. Only three individuals were degree prepared with an equal number of the remaining participants either certificate (n=17) or diploma (n=17) educated. Qualifications were highly variable (see Figure 2) with almost two-thirds being either registered nurses or registered nurse/midwives. Ward representation was very

balanced with 35% each coming from the medical and surgical units and the remaining 30% from the obstetrics/gynecology unit. Nearly three-quarters of participants had been in service for more than 10 years, with no participants reporting less than 5 years of service (see Table 2).

These socio-demographic characteristics were important in relationship to knowledge and attitudes scores, as reflected below.

Knowledge

The 10 objective questions in the knowledge component had a potential score of 10 with correct responses scored "1" and incorrect responses scored "0". Descriptively, the pre-test and post-test knowledge level was categorized as either adequate and inadequate. In this study 'adequate knowledge' was set at a cut-off point of 80% based on pilot study findings.

Table 2. Years of Experience of the Respondents.

| | Frequency | Percent % |
|--------------|-----------|-----------|
| 6 -10 | 8 | 21.6 |
| 11-15 | 4 | 10.8 |
| 16-20 | 10 | 27.0 |
| more than 20 | 15 | 40.5 |

n=37

Table 3. Relationship between the Participants Characteristics and Knowledge Scores Pre- and Post-Test

| | Inadequate | | Adequate | | Chi-square | |
|---------------------------|-------------------------|-----------|-------------------------|-----------|------------|-----------|
| | Knowledge % Pre-test | Post-test | Knowledge % Pre-test | Post-test | Pre-test | Post-test |
| Age of the participant | | | | | .072 | .486 |
| Less Than 29 | 100 | 0 | 0 | 100 | | |
| 30-39 | 66 | 33 | 33 | 77 | | |
| 40-49 | 68 | 62 | 32 | 38 | | |
| 50-59 | 73 | 36 | 27 | 64 | | |
| Years in service | | | | | .072 | .711 |
| 6-10 | 64.7 | 41 | 35.3 | 59 | | |
| 11-15 | 76.5 | 53 | 23.5 | 47 | | |
| 16-20 | 66.7 | 33.3 | 33.3 | 66.7 | | |
| 20 and above | | | | | | |
| Ward | | | | | .676 | .108 |
| Medical | 61.5 | 31 | 31.5 | 69 | | |
| Surgical | 76.9 | 69 | 23.1 | 31 | | |
| Obs/Gyn | 72.7 | 36 | 27.7 | 64 | | |
| Years in service | | | | | .974 | .256 |
| 6-10 | 75 | 50 | 25 | 50 | | |
| 11-15 | 75 | 25 | 25 | 75 | | |
| 16-20 | 70 | 70 | 30 | 30 | | |
| 20 and above | 66.7 | 33.3 | 33.3 | 66.6 | | |
| Current position | | | | | .111 | .108 |
| Ward in-charge | 40 | 20 | 60 | 80 | | |
| Staff nurse | 75 | 50 | 25 | 50 | | |
| Qualification | | | | | .715 | .793 |
| Enrolled nurse | 100 | 100 | 0 | 0 | | |
| Enrolled midwife | 100 | 66.7 | 0 | 33.3 | | |
| Registered midwife | 50 | 33.3 | 50 | 66.7 | | |
| Registered nurse | 71.4 | 43 | 28.6 | 57 | | |
| Registered nurse /midwife | 70 | 50 | 30 | 50 | | |
| BSN | 66.7 | 33.3 | 33.3 | 66.7 | | |

The mean scores on the pre- and post-tests were 50.9 (SD 1.893) and 70.6 (SD 1.27) respectively. Through a paired t-test (see Table 4), the mean (-.243), standard deviation (.495), and t (-2.991) indicated a statistically significant increase in knowledge (at $p < 0.005$).

So, Adequate knowledge = 80% of total score (or score 8-10); or

Inadequate knowledge < 80% of total score (or score < 8).

On the pre-test, twenty-six (70.3%) scored less than 80% and none scored 100%. After the intervention, twenty (54.1%) scored over 80% and 15 (43.2%) scored between 60 and 79.

Cross tabulation analysis (see Table 3) identified the relationship between demographic characteristics and participants' knowledge scores. Of note, amongst younger (under 39 years of age) participants and those with 11-15 years nursing experience, there was a positive shift in their pre to post-test scores. Although statistical association between the demographic characteristics and scores on knowledge was identified, no relationships were

Table 4. Paired Differences of Adequate and Inadequate Knowledge on Pre-Test and Post-Test.

| | Paired difference | | 95% Interval Difference | Confidence of the | | Sig. (2 tailed) |
|--|-------------------|-------------------|-------------------------------|----------------------|--------|-----------------|
| | Mean | Std. Deviation | | Lower | Upper | |
| Pre-test score & post-test score categories on knowledge | -.243 | .495 | -.408 | -.078 | -2.991 | .005 |

Note: Categories of Adequate and Inadequate. Reject Null Hypothesis: There was no difference between the means of the two categories on pre- and post-test.

found to be statistically significant (i.e., chi-square > .05).

Attitude

Participants' attitudes were assessed via a Likert scale, with item scores ranging from strongly agree (4) to strongly disagree (1). The total potential number of responses were 16, yielding a total possible response score of 64 (100%). For this study, participant performance was categorized into two categories - acceptable and unacceptable - with scores of 70% (45 or more) and above categorized as acceptable attitude, while those below 70% (44 or less) categorized as unacceptable attitude.

On both pre and post-tests, respondents strongly agreed that nursing notes were meaningful and necessary for legal protection, as well as a nursing priority. Strong disagreement was found with regard to familiarity with policies on nursing documentation, and an uninterrupted environment for care documentation. Twenty five (67%) participants on pre-testing had an acceptable attitude toward documentation; whereas, following the intervention, twenty (54%) were found to have an acceptable attitude.

Cross tabulation analysis (see Table 5) identified the relationship between demographic characteristics and participants' attitude pre- and post-test scores. Although the statistical association was established, none were found to be statistically significant significance (chi-square > .05).

Theme 1: Importance of Documentation

The participants' comments on the importance of documentation fit into two sub-themes: 'influence on daily practice and professional roles' and 'institutional issues'.

Influence on Daily Practice and Professional Roles encompassed how documentation routines affect direct patient care, nurses' conduct in relation to patients, and changes in professional focus as well as practice routines. Participants stated that documentation

prevented omissions, increased individualization of care, and improved patient follow-up. *Institutionally*, the participants indicated that quality documentation increased the credibility of the hospital and created good nurse-patient relationships. Additionally, one participant indicated that

"When we document the care provided, we shall be seen to be working as a profession."

Theme 2. Challenges

The participants discussed challenges regarding documentation of patient care. Frequently mentioned challenges included organizational issues, knowledge on documentation, training, motivation/support from nursing leadership, and motivation/responses from the interdisciplinary team. Within organizational issues, participants spoke of physical and psychological environments as well as logistical issues. Examples of the participant contributions included:

"As a nurse I would like to document the care I provide to patients but I don't have time to sit down and give a detailed report on a patient due to the heavy workload on my ward coupled with shortage of staff."

"The hospital does not provide enough stationary and the equipment for monitoring patients' vital signs and it's not enough to enhance the nurses' practice of taking observation and recording them."

Whether talking about the lack of knowledge, training, and/or support from nursing leadership, participants cited staff shortages, excessive workloads, and lack of interdisciplinary team consideration of nurses' notes.

Theme 3.Solutions

A consistent message from the participants was the need to inform and solve documentation issues. Clustering of these comments yielded a number of sub-themes including motivating factors (i.e., motivation from nursing leadership and inter-disciplinary team members), educational factors (i.e., pre-service and continuing edu-

Table 5. Cross tabulation of Participants' Characteristics with Acceptable and Unacceptable Attitude towards Documentation.

| | unacceptable attitude % | | Acceptable attitude % | | Chi-square | |
|---------------------------|-------------------------|-----------|-----------------------|-----------|------------|-----------|
| | Pre-test | Post-test | Pre-test | Post-test | Pre-test | Post-test |
| Age of the participant | | | | | | |
| Less Than 29 | 0 | 100 | 100 | 0 | .652 | .671 |
| 30-39 | 22 | 44 | 88 | 66 | | |
| 40-49 | 37 | 25 | 67 | 75 | | |
| 50-59 | 36 | 36 | 64 | 64 | | |
| Education level | | | | | .935 | .771 |
| Certificate | 29 | 29 | 71 | 71 | | |
| Diploma | 35 | 41 | 65 | 59 | | |
| Degree | 33.3 | 33 | 66.7 | 66.7 | | |
| Ward | | | | | .413 | .964 |
| Medical | 24 | 39 | 76 | 61 | | |
| Surgical | 46 | 31 | 54 | 69 | | |
| Obs/Gyn | 27 | 36 | 78 | 64 | | |
| Years in service | | | | | .316 | .909 |
| 6-10 | 25 | 37 | 75 | 63 | | |
| 11-15 | 0 | 50 | 100 | 50 | | |
| 16-20 | 50 | 30 | 50 | 70 | | |
| 20 and above | 33.3 | 33.3 | 66.7 | 66.7 | | |
| Current position | | | | | .523 | .098 |
| Ward in-charge | 20 | 0 | 80 | 100 | | |
| Staff nurse | 34 | 41 | 66 | 59 | | |
| Qualification | | | | | .974 | .985 |
| Enrolled nurse | 0 | 0 | 100 | 100 | | |
| Enrolled midwife | 33.3 | 33.3 | 66.7 | 66.7 | | |
| Registered midwife | 33.3 | 33.3 | 66.7 | 66.7 | | |
| Registered nurse | 29 | 36 | 71 | 64 | | |
| Registered nurse /midwife | 40 | 40 | 60 | 60 | | |
| BSN | 33.3 | 33.3 | 66.7 | 66.7 | | |

The mean scores on the pre- and post-tests were 71.86 (SD 6.33) and 70.73 (SD 6.243) respectively. Through a paired t-test, the mean (.135), standard deviation (.536), and t (.134), of the participants indicates no significant difference in participants' attitudes on pre-and post-testing.

Table 6. Paired Sample t-Test .

| Pair | Paired Difference | | 95% CI | | t | Sig. |
|---|-------------------|--------|------------|-------|-------|------|
| | Mean | Std. D | Difference | | | |
| | | | Lower | Upper | | |
| Acceptable attitude – Unacceptable attitude | .135 | .536 | -.157 | .043 | 1.535 | .134 |

Note: Accept the null hypothesis: There was no significant difference between the means of the two categories in the pre-test and the post-test.

cation), and facilitating factors (i.e., logistics, uniformity, and documentation policies).

Motivating Factors. In terms of motivating factors, participants expressed difficulty to document care on a real time basis due to unfamiliarity with documentation

and excessive patient loads. One participant's commented that

"The nursing leaders should encourage us to document patient care without forcing us to do so, that's when the system will be sustained. This is something new to us we

need time to get used to it. Nurses cannot carry out procedures to more than 30 patients and then document all the care, it's possible to document for a few patients." Additionally, participants indicated that lack of use of the notes by members of the interdisciplinary was demotivating. This was reflected in the comments by one nurse that, "there should be some encouragement from the doctors; they should always read the nursing notes and the heads of the medical team should encourage nurse to document care by demanding for the nursing documentation too."

Educational Factors. In terms of education, the nurses clearly made the connection between pre-service training on documentation and the need for ongoing reinforcement through continuous education. The continuous nursing education on documentation should be done routinely. One participant stated that "If the documentation is not emphasized in the training schools, the students will not document after qualifying as a nurses."

Facilitating Factors. Many participants' solutions related to the design and intent of a documentation system such as consistency, logistics, and policies. These were reflected in the following quotations from the participants: "If documentation is to be implemented in the ward units, the implementation process should be done simultaneously on all ward units." "The policy makers should get involved in the implementation of the documentation system in this country."

CONCLUSIONS

This study was a mixed method intervention study investigating the knowledge and attitudes of a select group of Ugandan nurses towards nursing documentation. On six units in a Ugandan hospital, 37 nurses participated in the study which included a pre- and post-test approach augmented with open ended questions. The intervention was a session on documentation and introduction of a documentation form to be included in each patient chart.

There were a number of key learnings from the study. Participant knowledge improved on average by 20% post-intervention, which may be an initial indication of willingness to change aligning with Dalton's (1996) findings. A positive significant difference was found respecting participants' knowledge of the importance of documentation which may, in the future, impact documentation as Werner (2004) found. Motivation and support of nursing leadership with respect to documentation was found to be predictive of participants' knowledge on documentation ($p < 0.05$). Similar findings respecting the importance of support and motivation from managers and leaders were identified by Renfro, Sullivan, and McGee's (1990) and, more recently, Gordon, Rees McCausland et al (2008). The participants generally agreed that documentation is important for

professional and legal reasons. In this study, attitudes towards documentation shifted (albeit not significantly) to unacceptable following the intervention. This result mirrored findings by Newton (1995) and Langowski (2005) in a study of nurses' attitudes and quality of documents in computer care planning. Newton (1995) described a stage where the participants' attitude became negative after an intervention as the organization in a "fluid state". In this study, we queried whether the shift may have reflected the participants' frustration due to the inability to meet what they aspired to in terms of quality documentation. This effect merits further consideration in future studies. Many of the quantitative findings were reflected in the three emerging qualitative themes which spoke to the importance, challenges, and potential solutions for patient care documentation in their setting. Participants emphasized that documentation has an integral and critical role in the patient care continuum, but that their current patient care environment was not conducive to quality documentation. It was through their descriptions of the potentials and solutions that the participants demonstrated their commitment and willingness to embrace the necessary changes to achieve quality documentation.

This study has implications for nursing documentation both within and beyond the Ugandan context. First it is important to realize that documentation is not an isolated event, so efforts to improve documentation requires consideration of the context, the practitioner motivation, and management support. So regardless of setting, there is an imperative to bring a recurring focus on documentation in order to embed and emphasize its role in clinical continuity. Second it is important to recognize and enable the appetite for quality documentation by nurses. This will lead to innovative efforts, supportive environments, and change management for nursing documentation.

Finally, there is a need for future multi-site studies and extension of the documentation tool. Nurses globally are continually seeking quality improvement strategies and initiatives to enhance patient care and outcomes – with documentation as a focal point.

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